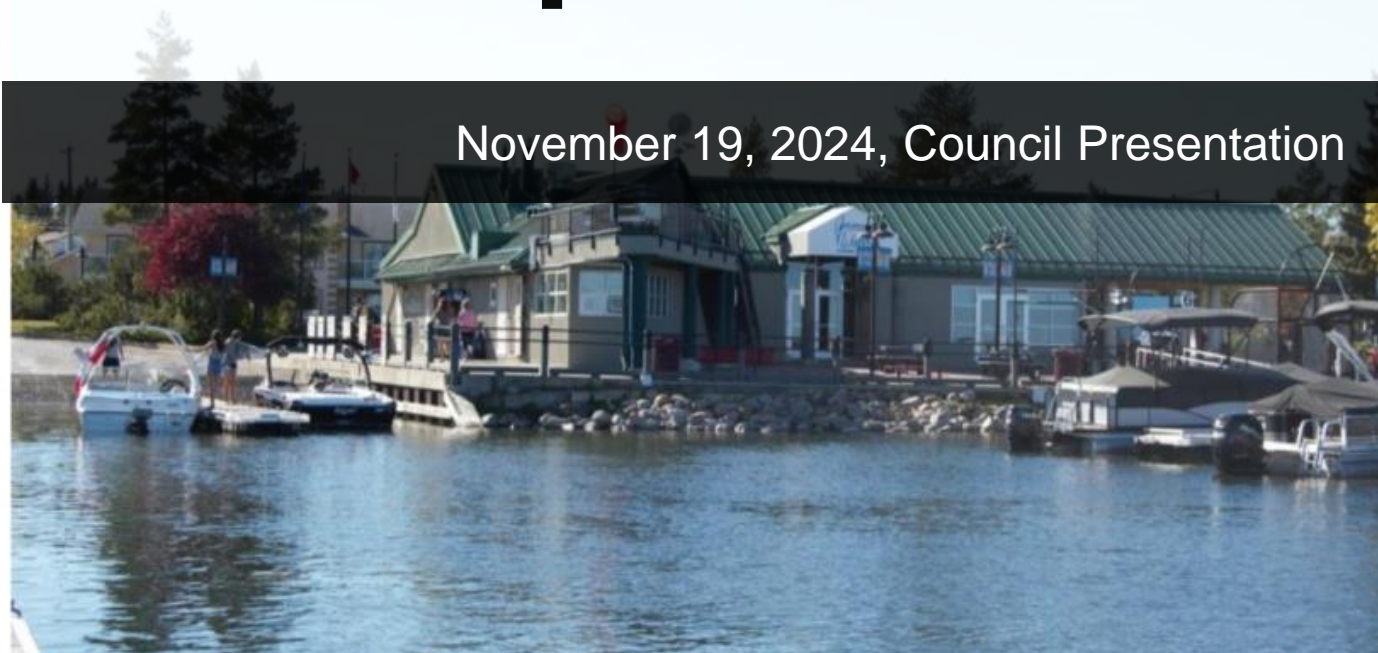# Transportation Master Plan

November 19, 2024, Council Presentation

Project Overview

Primary Inputs

Municipal Development Plan

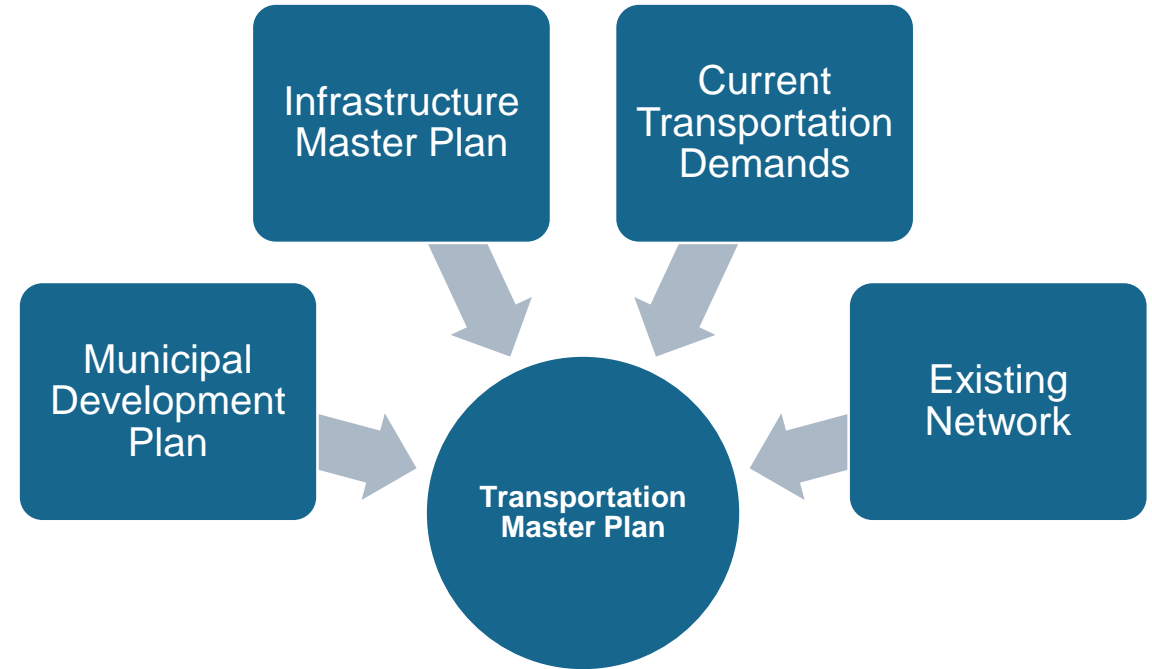- Land Use Growth (5, 10, 20, 25 Years)

Intermunicipal Development Plan

Current Transportation Demands

- Travel Patterns
- Travel Demands

Existing Network

- Vehicles
- Transit
- Goods Movement
- Active Transportation

Infrastructure Master Plan

Current Transportation Demands

Municipal Development Plan

Existing Network

Transportation Master Plan

Project Overview

Primary Outcomes

Network Conditions

- Existing and Future Network Capacity

- Servicing Requirements (roads, intersections)

- Highway 28 Functional Study Review

Transit

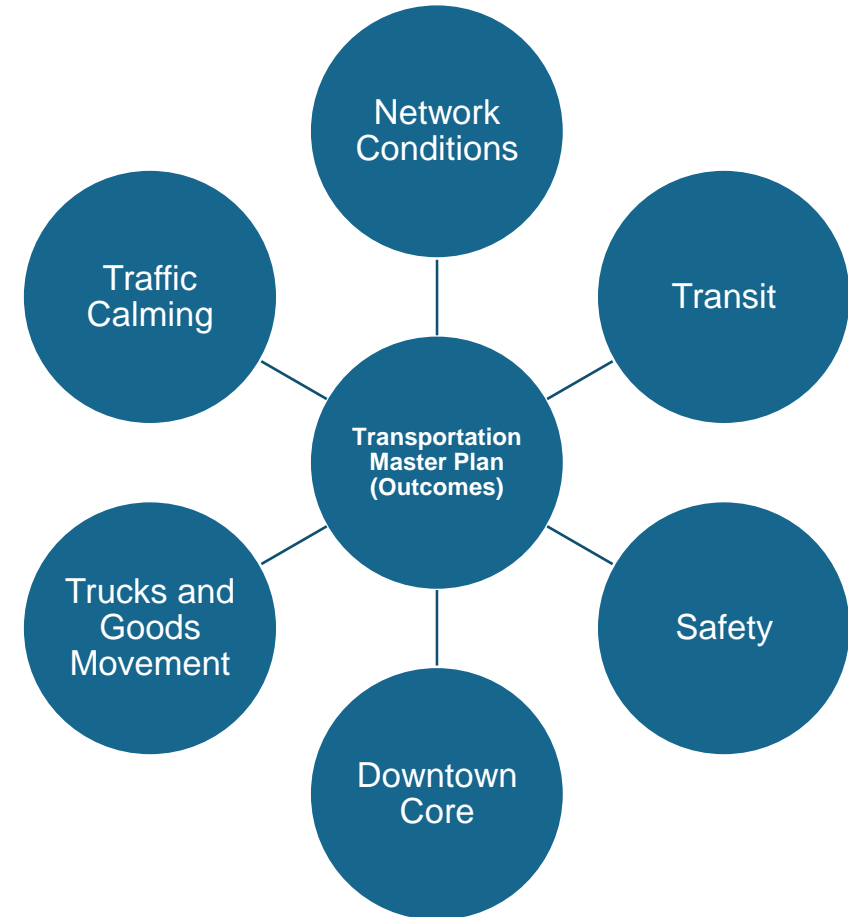- Existing Services Review

Safety Reviews

- Collision History (mapping), hot spotting

Downtown Core Review

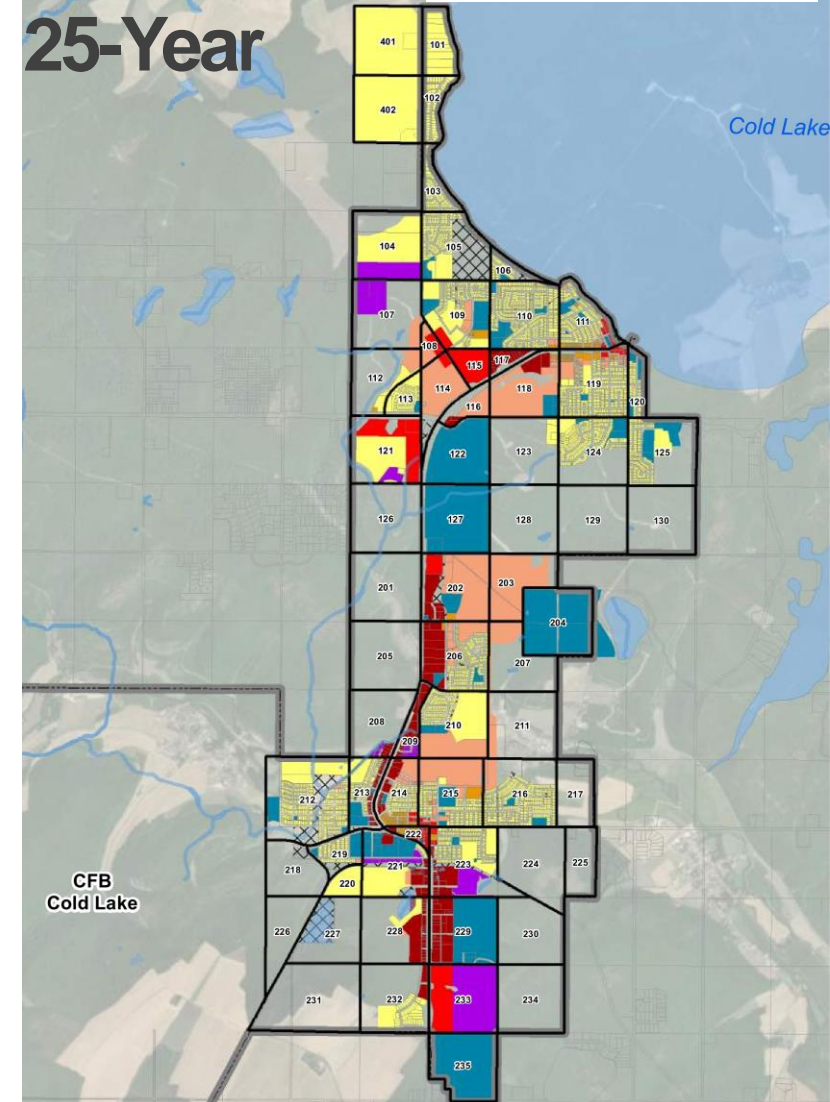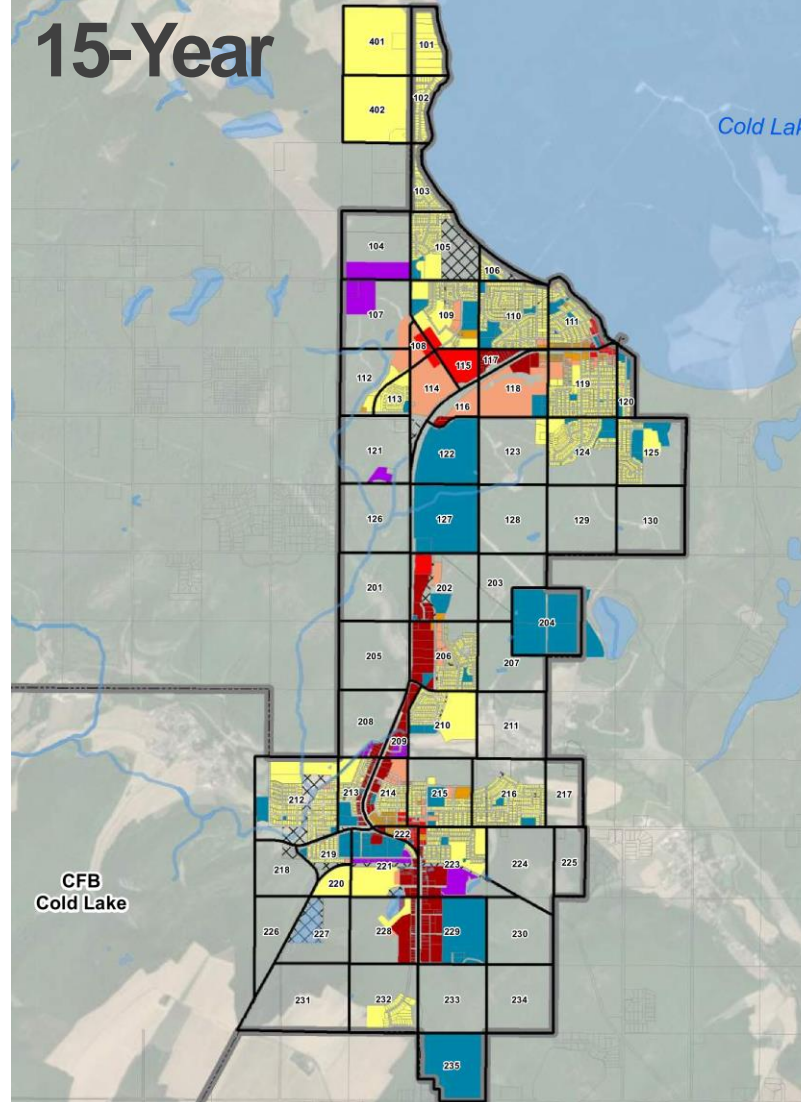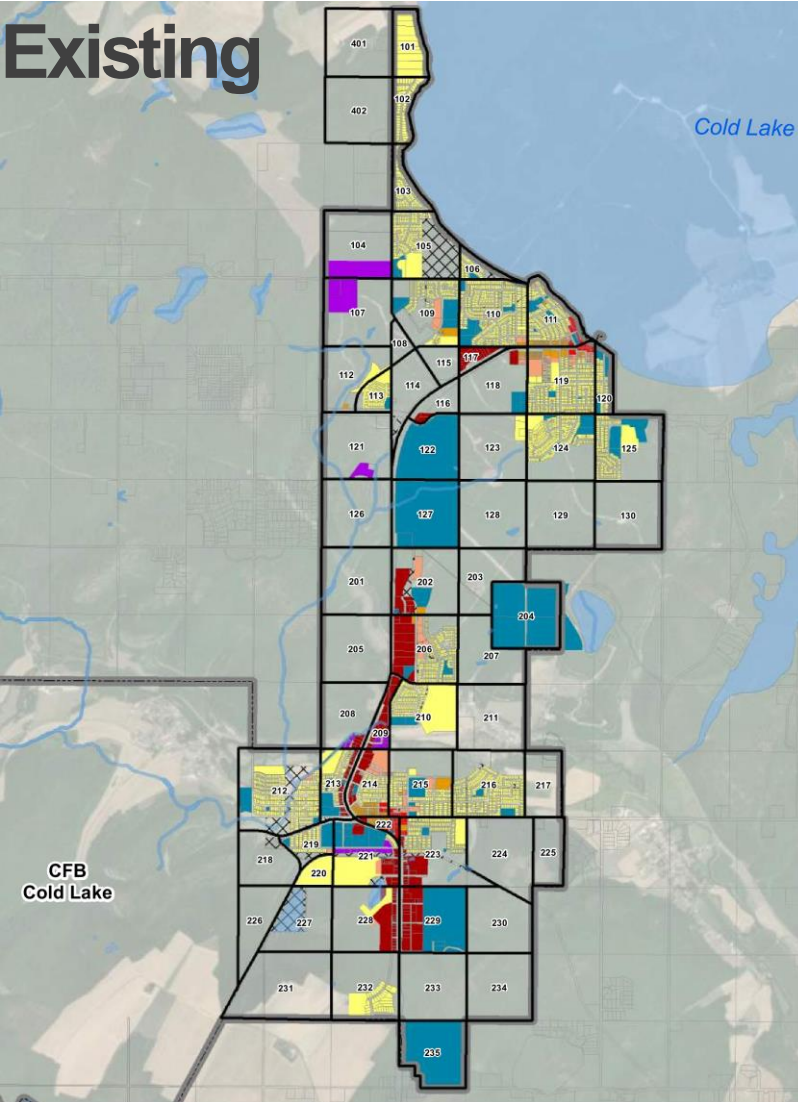- Pedestrian network, parking strategies and intersections

Traffic Calming Considerations
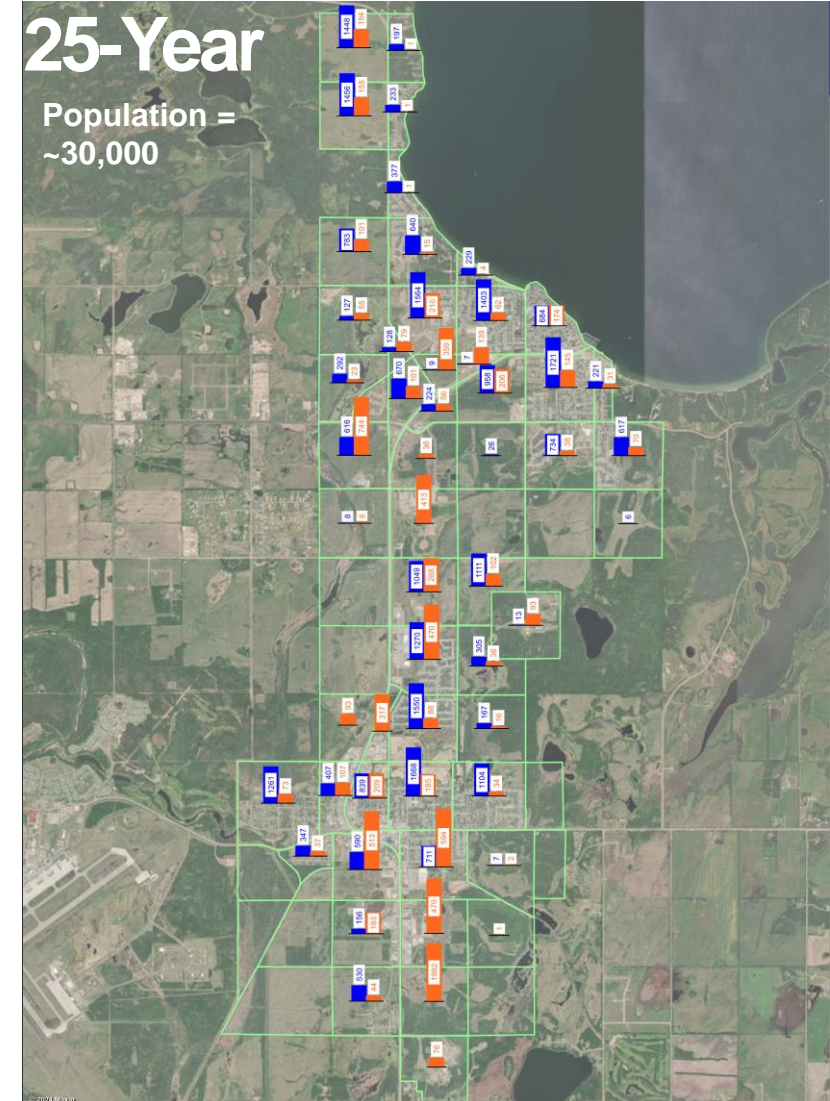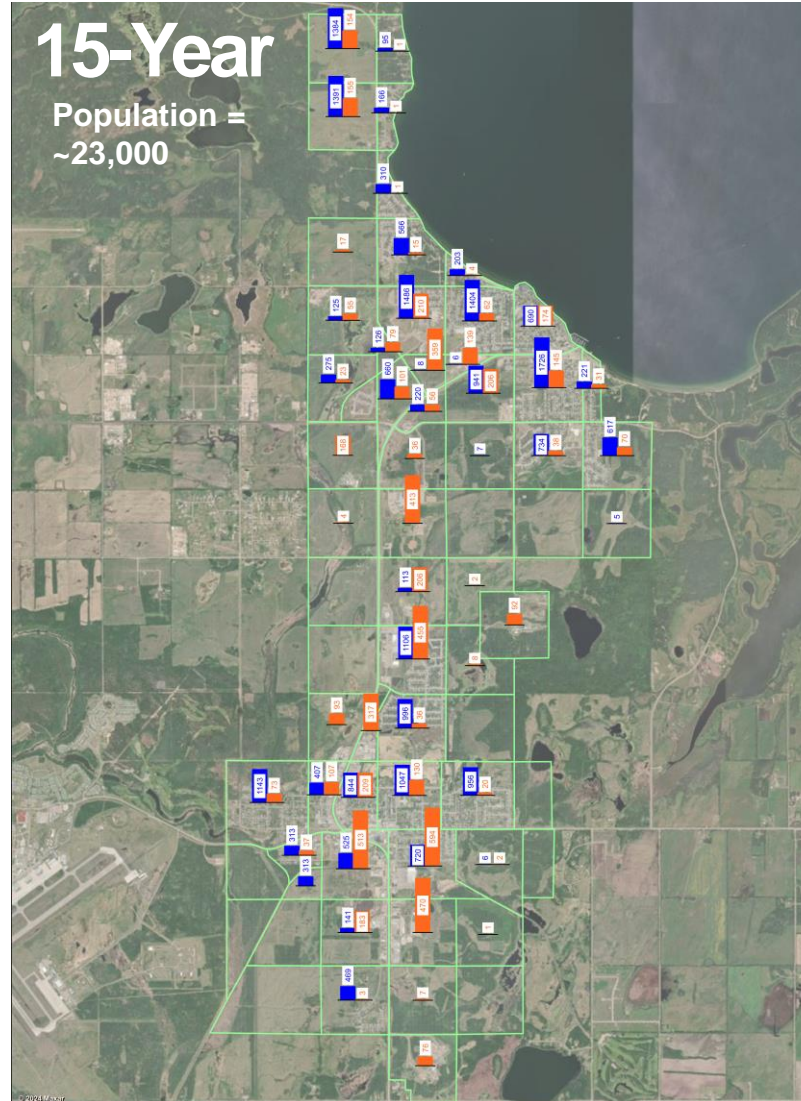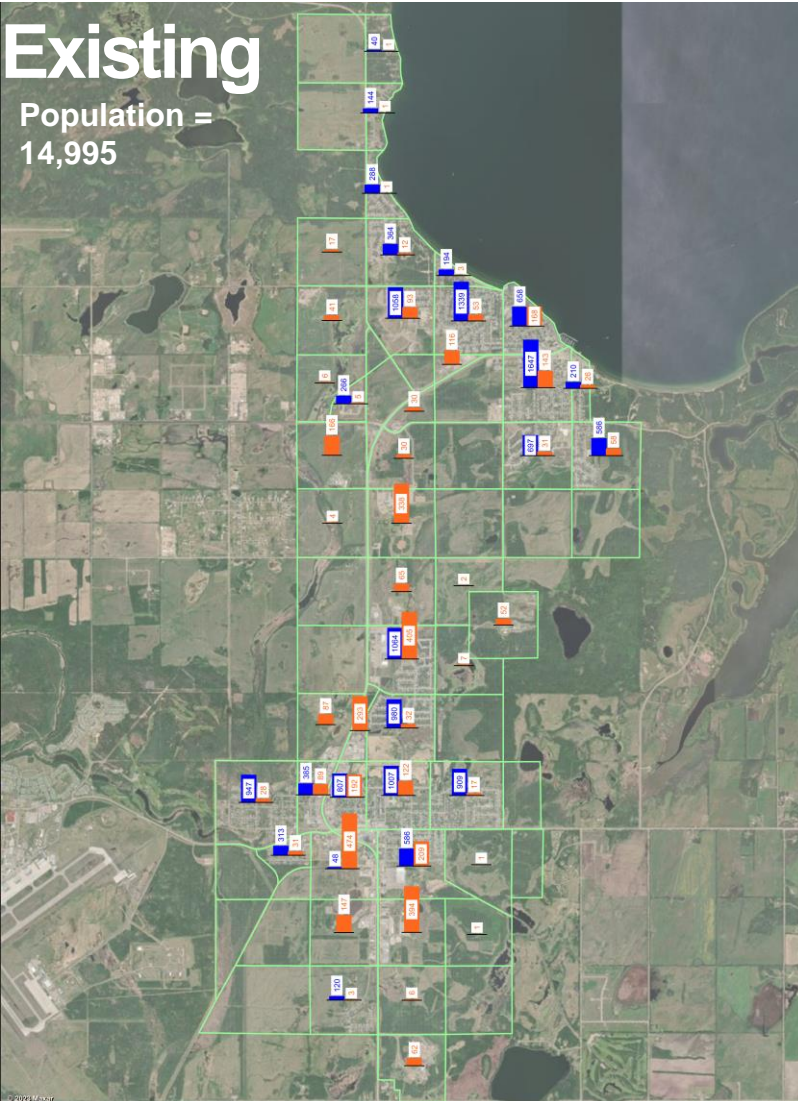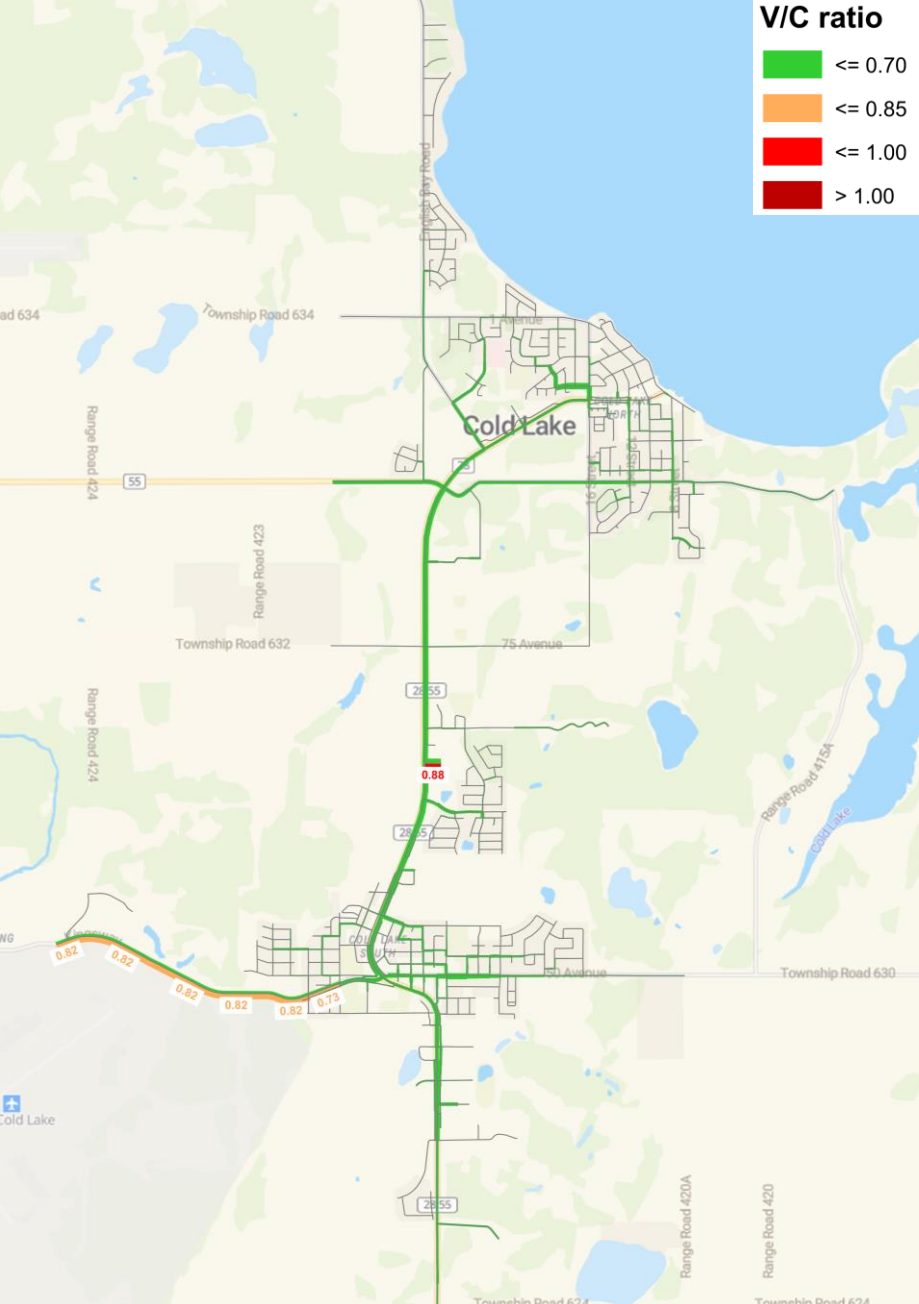
Trucks and Dangerous Goods Routes

Land Use Projections

Total Population and Employment Projections

Existing
Population = 14,995

15-Year
Population = ~23,000

25-Year
Population = ~30,000

Integrated Expertise. Locally Delivered.

Transportation Servicing Requirement – Existing Conditions (14,995)

- Good operations, meeting performance thresholds

- Some low volume congestion (stop controlled intersections, with other routes available)

- Capacity for growth with no immediate improvements recommended

- Concept/Functional Planning Studies (by priority)
  - Veterans Way Twinning (Highway 28 to 59 Street)
  - Highway 28/55/16 Avenue
  - 16 Street Extension (50 Avenue to 16 Avenue)
  - West Bypass
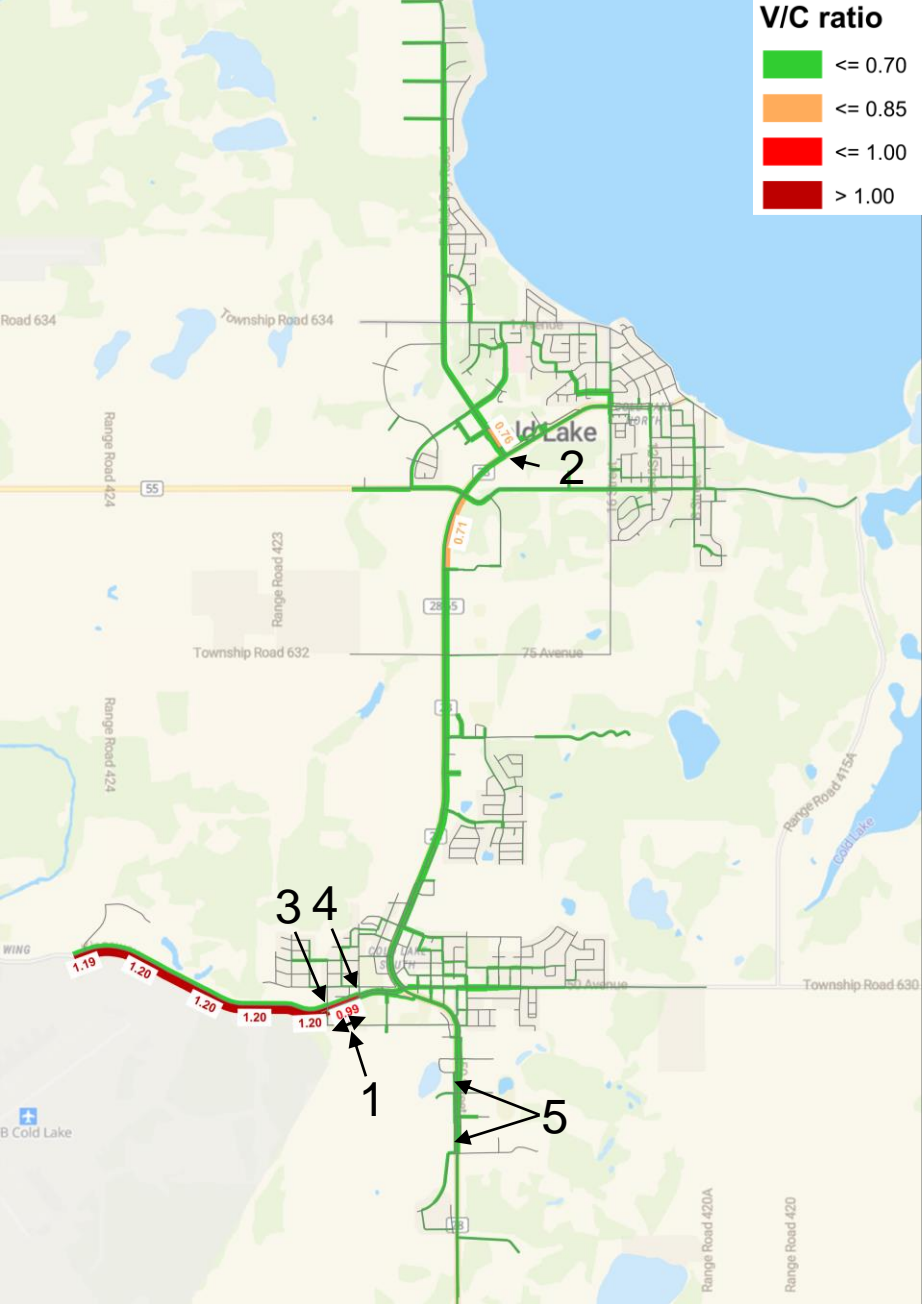
Transportation Servicing Requirement – 10 - 15 Year (~23,000)

Veterans Way – Congestion

- Shortcutting at 59 Street through 46 Avenue.

- Mitigation
  - 1 - Twinning between 57 Street and 59 Street
 - Transit Improvements (improved frequency, network services)
  - Collaborate with Regional Partners

Traffic Signals and Geometric

- 2 - Highway 28 and 25 Street
  - Signals (10-year)
  - Southbound right turn lane (5-Year)

- 3 - Veterans Way and 59 Street (10-year)
  - Signals, East/West Left Turn, Right Turn Lane

- 4 - Veterans Way and 57 Street (10-year)
  - East/West Left Turn Lanes

- 5 - Highway 28, 34 Avenue and 40 Avenue (10-year)
  - North/south left turn lanes
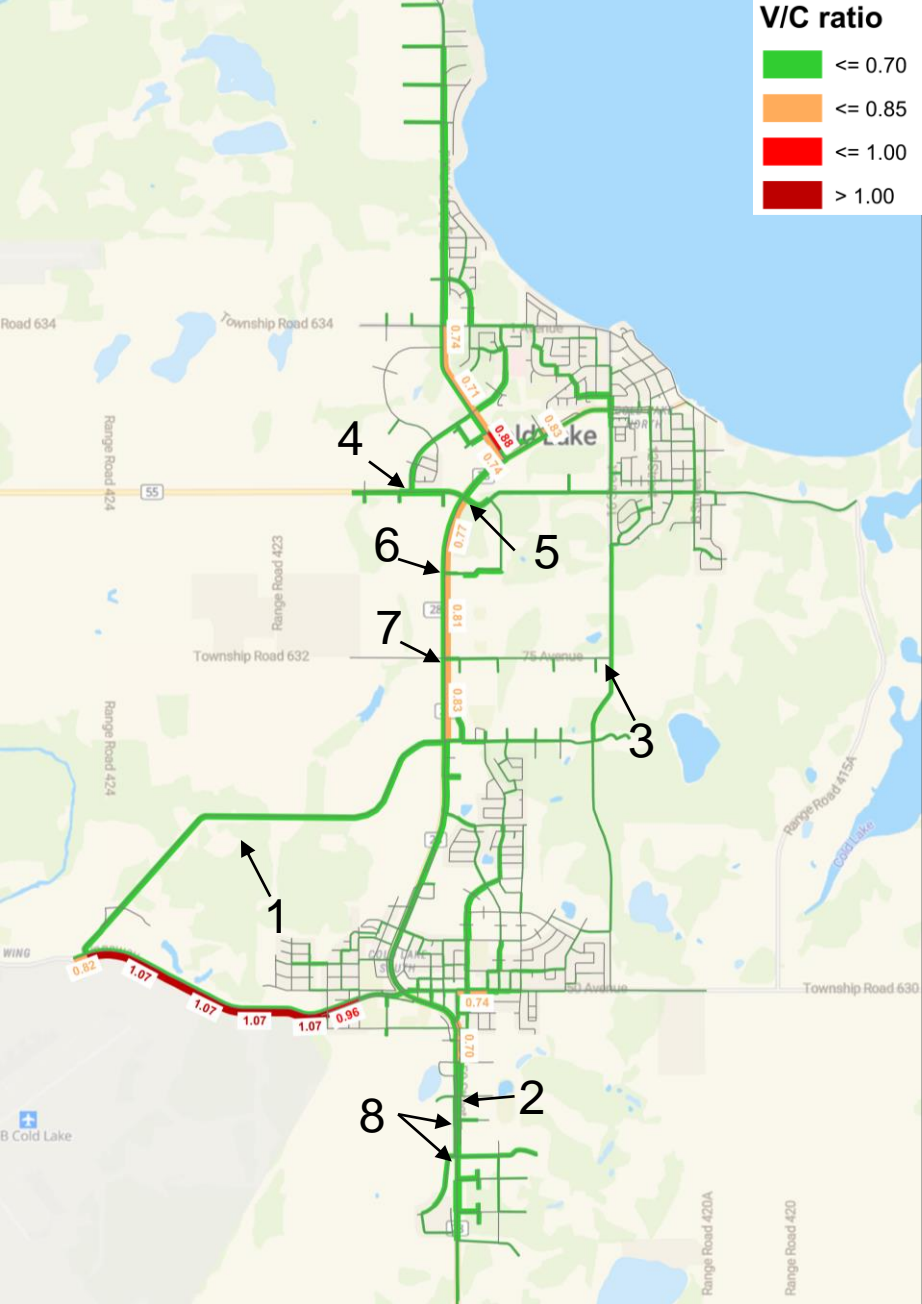
Transportation Servicing Requirement – 20 - 25 Year (~30,000)

Major Improvements (20-year)

- 1 - West bypass to 69 Avenue (To be determined)

- 2 - Twinning Highway 28, 43 Avenue to ~200 m south of 34 Avenue, Other Functional Planning Study Improvement

- 3 - New 2-lane Connection, 16 Street extension to 50 Avenue

Traffic Signals and Geometry (20-year)

- 4 - Highway 55 and English Bay Road - Signals

- 5 - Hwy 55/28 and 16 Avenue
  - Northbound dual left, widening east/west

- 6 - Highway 28 and Energy Centre
  - East/west left turn lane

- 7 – Highway 28 and 75 Avenue
  - Signals, East/west left turn lane

- 8 - Highway 28 and 40 Avenue, 34 Avenue (20-year)
  - Signals

Highway 28 Functional Study Review

Scope: Comparison of 2015 Functional Study and TMP

- 46 Avenue - Modeling confirms proposed conversion to all-directional signalized intersection is recommended (20 Year)

- 42 Avenue – Low demand, changing to right-in only per study is expected to have minimal impact on other intersections

- No major changes from the Study (proposed addition or exclusion of turn lanes at some intersections)

- Functional Study extension from 34 Avenue to south development boundary
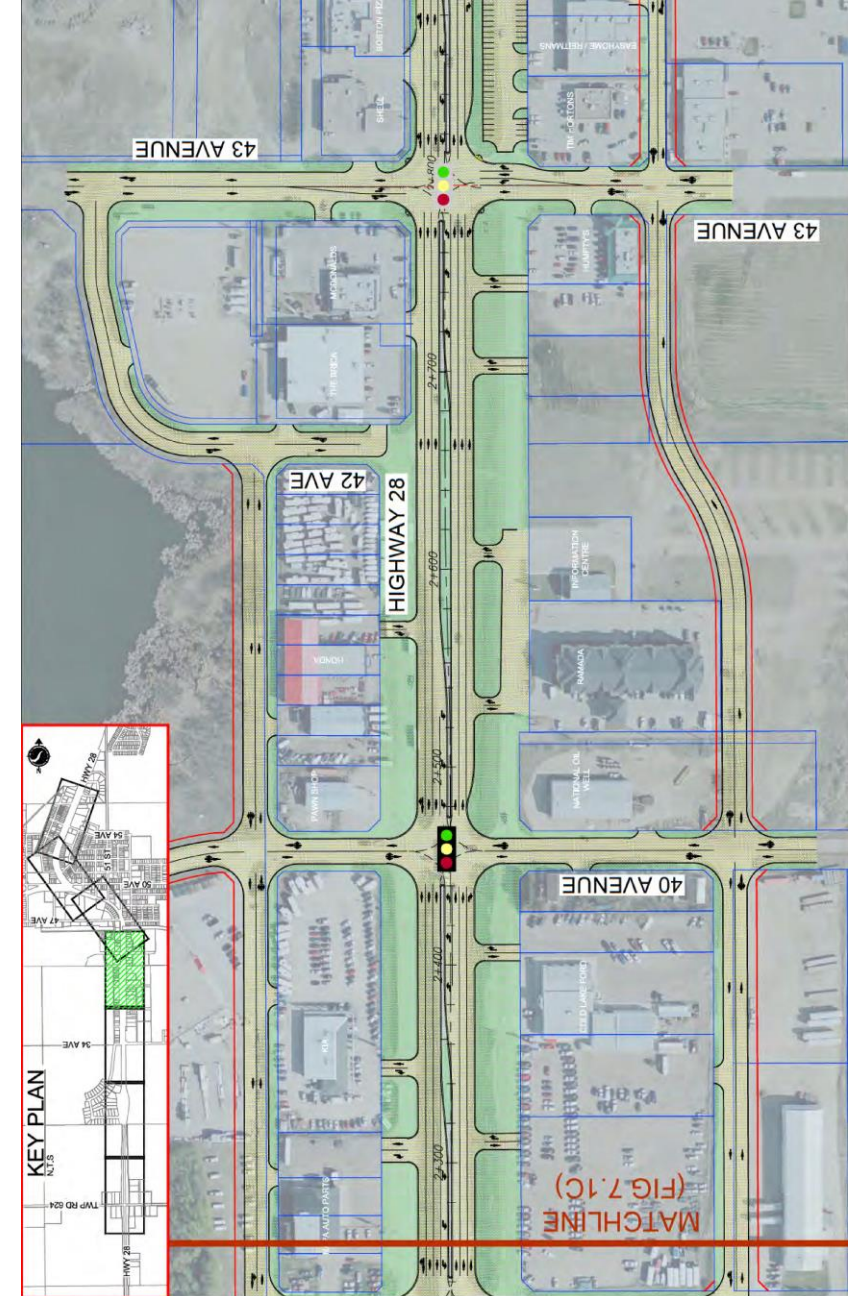
Transit Service Review

Two existing routes

- Bidirectional routes connecting CFB, North and South Cold Lake

- ~50-minute headway

Considerations

- Express Route (Limited stops, Tri-City Mall, CFB, 2 – 3 Cold Lake North/South)

- Increased Frequency

- Replace low ridership areas with on-demand service

- Recommend comprehensive review

Integrated Expertise. Locally Delivered.

Trucks and Dangerous Goods Routes

Existing Conditions

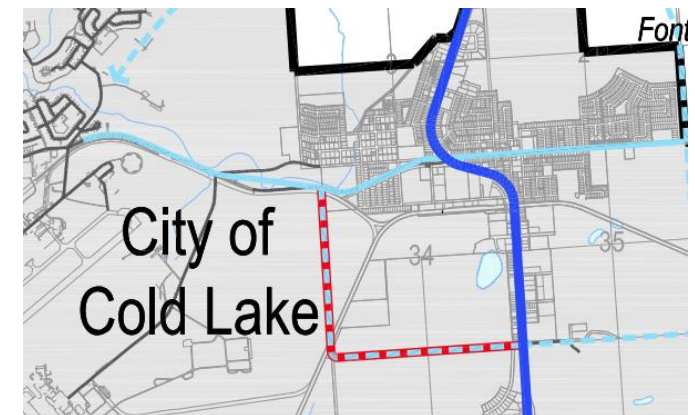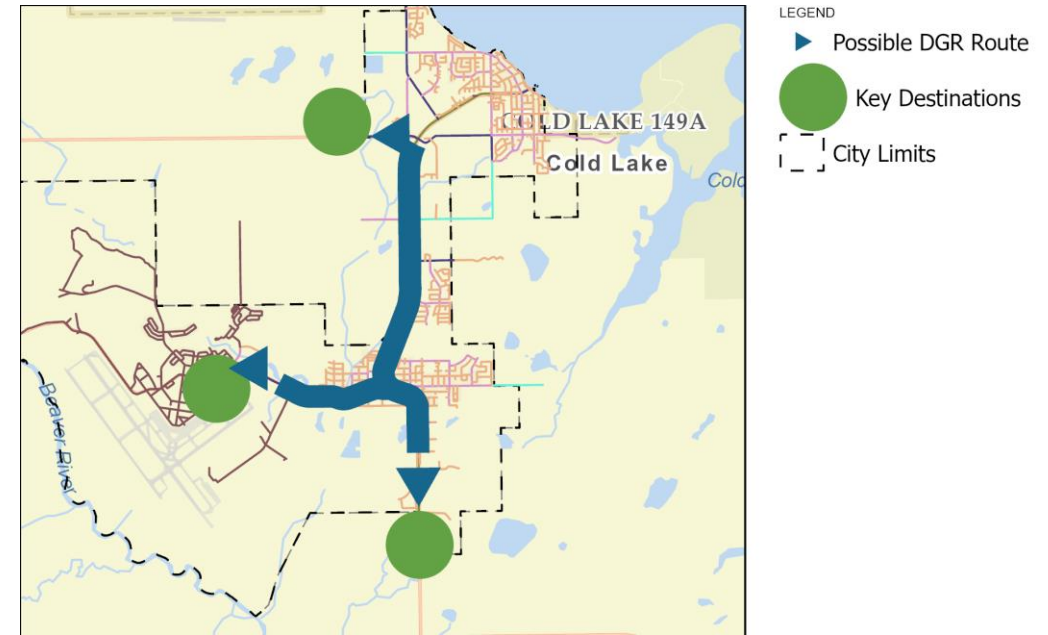- No Trucks and Dangerous Goods Routes currently

Potential Routes

- Existing highways

Constraints

- Lakeland Catholic Schools building less than 20 m from Hwy 28
- Kingsway Avenue passes by neighbourhoods and schools

Future Route (from previous TMP)

- Range Road 23/34 Avenue

LEGEND

▶ Possible DGR Route

● Key Destinations

City Limits

Urban Design

Overall Good Connectivity

- Upgrade with redevelopment

- Fill in gaps as needed

Recommend a Comprehensive Parking Strategy

- Input to future Area Redevelopment Plan
- Encourage Shared Parking
- Review parking supply and demand
- Assess potential strategies (parking pricing, parking time limits, connectivity to off-street)
- Consultation with businesses and visitors

Future Intersections

- Maintain all-way stops
- Curb Extension (to improve sightlines)


Corridor/Intersection Curb Extensions

Missing Sidewalks

Integrated Expertise. Locally Delivered.

Traffic Calming Measures

Specific Locations

- 51 Avenue (41 Street to 45 Street) – Speed concerns

- 45 Street and 54 Avenue – Bypass/school zone

- 47 Avenue (59 Street to Highway 28) – Bypass route

Considerations

- **Strategy:** Consider measures to control speeds

- **Guidance:** Canada Traffic Calming Guide

- **Examples:**
  - **Curb Extensions:** Standardize lane widths near intersections, improve sightlines for active modes, reduce speeds to 8 km/hr
  - **Raised Crosswalks:** 80 mm vertical deflection, Canada standard (considering emergency and snow clearing), reduce speeds by up to 13 km/h

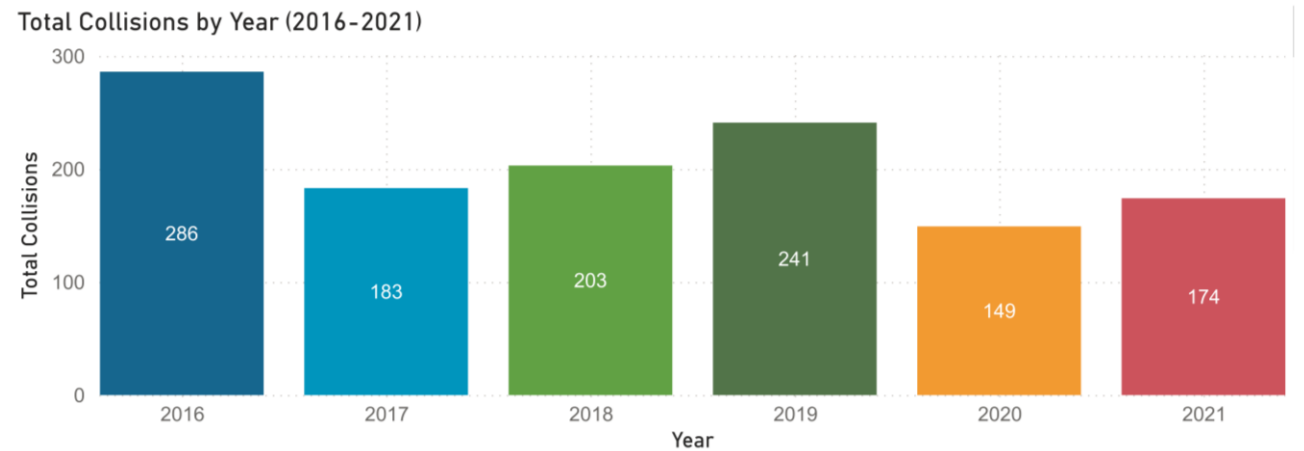- **Implement Measures on Noted Routes (and others as needed)**
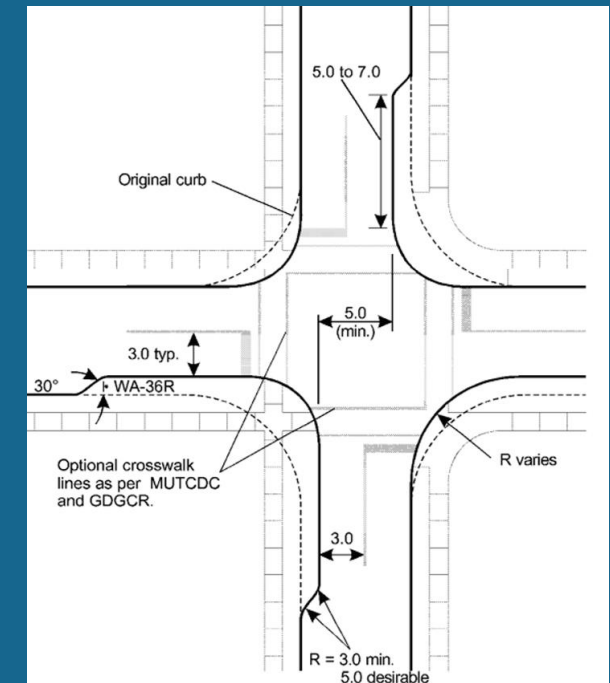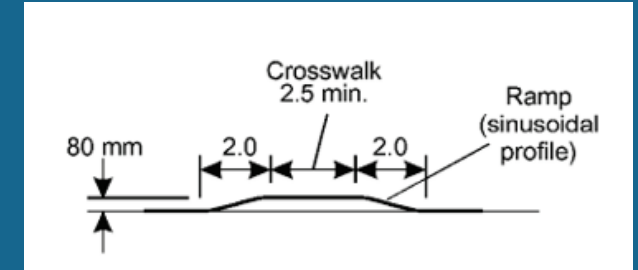
Safety Review

Data Range: 2016 – 2021 (6 years)

Total Collisions: 1,236 records, involving 2,488 separate road users

Observations:
- 40% reduction since 2016
- November to March, 45% higher than April through October
- 93% are property damage only
- 7% involve and injury

Total Collisions by Year (2016-2021)

Safety Review

Locations

Hotspots

- Parking Lots - Tri-city Mall, Walmart, Energy Centre

- Highway 28 and 50 Avenue

- Highway 28 and Highway 55

- Complete In-service Road Safety Study (x 2)
  - With ongoing study (1 to 2 intersections/year on average)

- Note – Data limitations (reference locations difficult to process, only 67% processed)

COLLISION LOCATIONS (2016-2021)

LEGEND
Fewer Collisions

More Collisions